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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,140	11/26/2001	Kenji Nakano	7217/65967	8592

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EXAMINER	
JONES, HEATHER RAE	
ART UNIT	**PAPER NUMBER**
2621	

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/994,140	NAKANO ET AL.	
	Examiner	Art Unit	
	Heather R. Jones	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 November 2001 and 13 March 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 November 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference sign "31" on page 4, line 22. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Rallison et al. (U.S. Patent 6,369,952).

Regarding claim **1**, Rallison et al. discloses an audio and video reproduction apparatus, comprising: a head-mounted display for converting a video signal into an image to present to a user (Figs. 1 and 17A; abstract); a pair of acoustic transducers each used for converting an audio signal into a sound to present to the user (52a and 52b); detection means for detecting an orientation of the head of the user (100); image-changing means for changing the video signal supplied to the head-mounted display in accordance with the orientation of the head of the user (col. 17, lines 23-30); and sound-image localization processing means for changing a sound-image localized position of the audio signal reproduced by the acoustic transducers in accordance with the orientation of the head of the user (505 and 503) (Fig. 17A displays audio inputs and outputs going to the right and left ear, therefore simulating the environment according to the user's orientation – col. 17, lines 23-30).

Regarding claim **2**, Rallison et al. discloses all the limitations as previously discussed with respect to claim 1 including that the pair of acoustic transducers are one of headphones mounted on the head of the user and a pair of earphones attached to ears of the user (col. 8, line 59 – col. 9, line 3).

Regarding claim **3**, Rallison et al. discloses all the limitations as previously discussed with respect to claim 1 including that the pair of acoustic transducers are speakers provided at positions close to the ears of the user (col. 8, line 59 – col. 9, line 3).

Regarding claim **4**, Rallison et al. discloses all the limitations as previously discussed with respect to claim 1 including that the detection means comprises a sensor mounted on the head of the user and a conversion unit for converting a detection signal generated by the sensor into a signal representing the orientation of the head of the user (col. 17, lines 23-30 – it is inherent that there is a detection means device in order to display the correct image according to the user's orientation).

Regarding claim **5**, Rallison et al. discloses all the limitations as previously discussed with respect to claim 1 including that the image-changing means is a cut-out circuit for extracting a video signal representing an image stretched over a visual-field range visible to the user via the head-mounted display from a video signal representing an image stretched over a range wider than the visual field range in accordance with the orientation of the head of the user (col. 17, lines 23-30 – it is inherent that the image-changing means has a cut-out circuit in order to display the correct portion of the scene detected by the orientation sensor in order to create the simulated environment because the scene that is saved would encompass 360 degrees in order to allow the user to be able to move any way they wanted).

Regarding claim **6**, Rallison et al. discloses all the limitations as previously discussed with respect to claim 1 including that the image-changing means is a cut-out circuit for extracting a video signal representing an image stretched over a visual-field range of the user from a video signal representing an image stretched over a 360-degree surrounding the user in accordance with the orientation of the head of the user (col. 17, lines 23-30 – it is inherent that the image-changing means has a cut-out circuit in order to display the correct portion of the scene detected by the orientation sensor in order to create the simulated environment because the scene that is saved would encompass 360 degrees in order to allow the user to be able to move any way they wanted).

Regarding claim **7**, Rallison et al. discloses all the limitations as previously discussed with respect to claim 1 including that the image-changing means is a video synthesis circuit for synthesizing video signals representing images stretched over a visual-field range visible to the user via the head-mounted display in accordance with the orientation of the head of the user (col. 17, lines 23-30 – it is inherent that for a scene that encompasses 360 degrees allowing the user to move any way they wanted would involve synthesizing several images together to encompass 360 degrees because not one camera can take one image that would provide enough information for the user to be able to move the 360 degrees).

Regarding claim **8**, Rallison et al. discloses all the limitations as previously discussed with respect to claim 1 including that the sound-image localization

processing means performs sound-image localization processing based on transfer functions from a sound-image localized position of the audio signal to ears of the user to produce the audio signal; and the audio signal is supplied to the pair of acoustic transducers as if the audio signal were localized at the sound-image localized position (col. 17, lines 23-30 – it is inherent to have sound that is localized according to the scene in order to simulate an environment the user is in. It is inherent it is localize from Figs. 17A and 22 where there are separate left and right outputs for the sound).

Regarding claim **9**, Rallison et al. discloses all the limitations as previously discussed with respect to claim 1 including that the sound-image localization processing means converts an audio signal representing a sound covering a 360-degree range surrounding the user into an audio signal that is supplied to the pair of acoustic transducers as a reproduction signal as if the reproduced sound image were localized outside the head of the user (col. 17, lines 23-30 – it is inherent to have sound that is localized according to the scene in order to simulate an environment the user is in and allowing the user to move 360 degrees to view the entire scene. It is inherent it is localize from Figs. 17A and 22 where there are separate left and right outputs for the sound).

Regarding claim **10**, Rallison et al. discloses all the limitations as previously discussed with respect to claim 1 including that the video signal supplied to the head-mounted display and the audio signals supplied to the

acoustic transducers are reproduced from a recording medium (col. 32, lines 27-59).

Regarding claim **11**, Rallison et al. discloses all the limitations as previously discussed with respect to claim 1 including that the video signal supplied to the head-mounted display and the audio signals supplied to the acoustic transducers are received from a network in real time (col. 31, lines 17-21).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather R. Jones whose telephone number is 571-272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Heather R Jones
Examiner
Art Unit 2616

HRJ
March 19, 2006